Fidget spinners can save lives as centrifuges

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Spotted: Researchers at National Taiwan University have discovered that a simple plastic fidget spinner – the 2017 surprise hit toy – can spin fast enough to work as a centrifuge and separate red blood cells from plasma, a necessary process for vital blood tests.

Chien-Fu Chen, Chien-Cheng Chang and colleagues worked out that, with just a few flicks of a finger, a fidget spinner could spin fast enough to separate about 30 percent of the plasma in only four to seven minutes. That is enough to help doctors in under-developed areas test for life threatening diseases like malaria and HIV.

Their research was published in the Analytical Chemistry Journal in December 2018.

Takeaway: This is not the first inexpensive, homemade centrifuge created to help doctors diagnose dangerous diseases in areas that lack electricity. But it is the first to use this popular kid's toy in this way. Often great innovations are about finding simple, low-cost solutions to serious problems. Taking this approach has resulted in innovations such as $30 clay refrigerators in India and a simple bench that converts into a lifeboat. In this case, re-purposing an inexpensive toy could be a breakthrough for doctors, especially those working in seriously impoverished areas.

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